

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

May 24th, 1899.—W. Whitaker, B.A., F.R.S.,
President, in the Chair.

Prof. SEELEY exhibited a cast from a footprint obtained by Mr. H. C. Beasley from the Trias at Stourton. The impression is about $1\frac{1}{2}$ inch long, and nearly as wide. The cast has been treated by oblique illumination, so as to display its osteological structure by means of the shadows thus thrown. All the claws are directed outward, as in a burrowing animal. The form of the foot resembles that of a monotreme mammal rather than that of any existing reptile. There appears to be a slender pre-pollex including three bones. The only other example of this structure in the Trias is in the Theriodont reptile *Theriodesmus*, in which it is less definite. This character may add to the interest of other footprints from Stourton, which in the form of the foot approximate to Anomodont reptiles from the Karoo Beds of Cape Colony.

The following communications were read:—

1. 'On the Distal End of a Mammalian Humerus from Tonbridge.'
By Prof. H. G. Seeley, F.R.S., F.G.S.

The bone described in this communication was found in 1898 by Mr. Anderson on the bank of the River Medway, near Tonbridge. It was seen projecting from reconstructed rock which contained fragments of flints among other materials. Traces of matrix at the distal end show that the specimen has been derived from quartz-sand bound together with limonite, such as might occur in the Hastings Sand, Wealden Clay, or Lower Greensand. Conditions of mineral structure and osteological character incline the Author to believe that the bone was originally contained in the Wealden Clay. The fossil is 4 inches long, and indicates a humerus which may have been 6 inches in length when perfect, as large as that of a wolf but smaller than that of a bloodhound. The form of the shaft precludes any comparison with the carnivora, and indicates a resemblance to ungulate types. When the bone is held vertically and seen from the front, the condyles are oblique—a character not observed in any other animal. The weight of evidence appears, to incline towards reference of the fossil to the Artiodactyla, but it probably indicates a new family type.

2. 'On Evidence of a Bird from the Wealden Beds of Ansty Lane, near Cuckfield.' By Prof. H. G. Seeley, F.R.S., F.G.S.

A fragment of bone found, by Mr. Neville Jones, a member of the London Geological Field Class, embedded in sandstone was identified by the Author as probably the distal end of the femur of a bird.

The external condyle is not only larger and deeper than the inner, but is more prolonged distally—perhaps the most distinctive avian character of the bone. *Colymbus* is the only existing bird to which the fossil makes any approximation, but the resemblance is distant and not suggestive of near affinity, and it is interesting that the Cretaceous birds show so marked an affinity with that type. The resemblances of the Dinosaurian and Crocodilian femora with this type are such that almost every individual feature of the bone can be paralleled in some fossil referable to these groups, but there are no British dinosaurs of so small a size or possessing some of the marked features shown by this bone.

June 21st, 1899.—W. Whitaker, B.A., F.R.S.,
President, in the Chair.

The following communications were read:—

1. 'On some Ironstone Fossil Nodules of the Lias.' By E. A. Walford, Esq., F.G.S.

In the Lias of Oxfordshire some ironstone-nodules are found at the point of contact of the Middle and Upper Lias. 'The Middle Lias stone is compact, crystalline, and absorbent, and contains numerous irregular pyriform bodies,' some of which 'are changed wholly into a form of red hæmatite. These . . . bodies have a circular vertical canal or shaft . . . with the polyp and zooid-cells ranged round in obscure spiral growth. The cells have the areolated structure of the crinoids, or are spiculate of the type figured by Sars in *Pennatula*. Though in form approaching the *Cumacea*, the presence of perforated brachial plates, of annulated segments, and of spiculate zooidal cells, places the group between the *Pennatule* and the Crinoids. The resistance of the denser structure of the beds of calcareous stems of the rag-beds has caused the beds above and below them to become the lines of drainage, and hence [to become converted] into beds of greater ferruginous concentration.'

2. 'Additional Notes on the Vertebrate Fauna of the Rock-Fissure at Ightham (Kent).' By E. T. Newton, Esq., F.R.S., F.G.S.

Since the previous paper on the Ightham-fissure fauna published by this Society about five years ago, numerous additional specimens have been obtained, not only by Mr. Lewis Abbott, but also by Mr. Frank Corner and Mr. Kennard.

The present paper gives a very brief account of the new forms which have been discovered and identified during the last five years, with remarks upon some important additional remains of *Mustela robusta*, and of the *Spermophilus* which is now referred to the species *erythrogenoides* of Falconer. This paper adds some 19 new forms to the fauna of the Ightham fissure.